The Five Principles of Australian Factor Investing

Invesco Australian Equities whitepaper

Executive summary

Factor investing is a widely adopted discipline, complementing the role of traditional investment managers. This paper explores the five principles of factor investing in Australia. Principles which Invesco's Australian Equity capability have embraced to successfully outperform the ASX benchmark, integrate ESG considerations and keep management expenses low.

The Five Principles

1. Everyone's a factor investor	All active equity investors seek superior returns from companies having growing earnings, with quality management teams, which are attractively valued.
2. Australian equities is a growth investor's market	Growth - primarily via earnings momentum – is the primary driver of Australian equity returns. Quality and Value are powerful complements.
3. Diversification is key	Factor diversification through the cycle, stock diversification to capture factor characteristics, and attribution diversification for reliable return outcomes.
4. Factor investing and ESG are perfect partners	Dual objectives of returns and ESG outcomes can be uncompromisingly achieved. Efficient data use, ESG integration and investment stewardship.
5. Big on returns, small on cost	Big on data and technology, small on capital intensive overheads.

The Five Principles of Australian Factor Investing

1. Everyone's a factor investor

Factor investing is a discipline where companies are selected for investment based on their relative attractiveness of desirable characteristics – or 'factors'. Whilst the emphasis and application may differ, the broad notion of investing in desirable characteristics is universal across investors, regardless of investment style or process. Factor Investors apply their approach systematically, and choose characteristics demonstrated by academic research to be drivers of markets over the long term.

To take a look, we used natural language processing to analyse the investment policy and research commentaries of 7000 funds in the eVestment database. Exhibit 1 shows the most interesting words as determined by frequency of appearance in the investment policy statements. Words appearing more frequently in the text corpus of statements are shown proportionally larger.

Exhibit 1: Analysis of the terms from investment policy statements in eVestment

Source: Invesco, eVestment. Text from the investment policy sections from eVestment's global unverse of 7000 equity funds was analysed, as at December 2019. Stop words and common words removed.

Each manager's investment policy statement can be boiled down to a small number of key drivers. Some load more heavily on some key drivers than others. It is no surprise to see the word "Growth" turns up more than any other "interesting" word. "Value" is also very high on the list.

To tease out this idea further, we sourced manager returns for funds with a long history (at least 13 years) from the Mercer[1] database and regressed each series against the returns to generic Value and Momentum factors. Plotting the regression coefficients produces the scatter chart in Exhibit 2. We see the results cluster managers into groups true to their broad style labels. Unsurprisingly, managers broadly recognised as emphasising Value factors load more heavily on Value; managers broadly recognised as being more "growth biased" have more balanced loadings between Value and Momentum.

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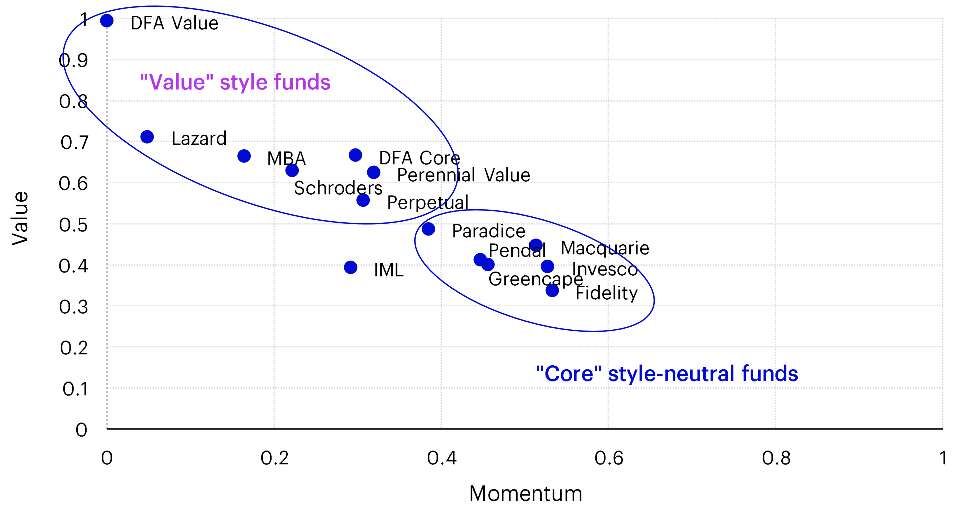
Exhibit 2: Australian fund manager Value vs Momentum regression coefficients



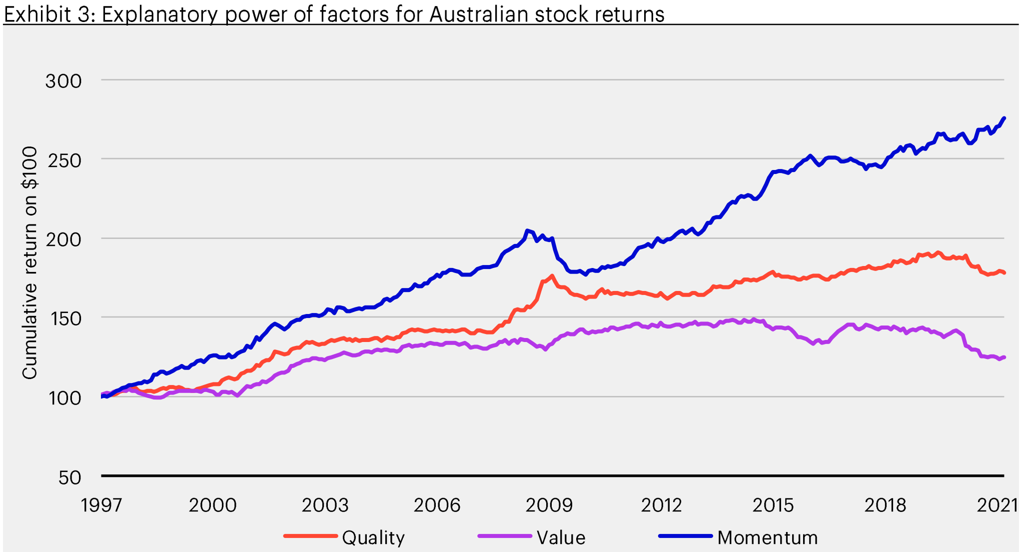
Source: Invesco

So it turns out that fund managers and theoreticians more or less agree that the main drivers of stocks in the medium to long term are Growth, Quality and Value… you can add Size and Volatility into the mix as well. Hence, it is the application of how to identify these factors that differentiates between fund management approaches. For quantitative or factor investors, long term predictors of earnings growth are somewhat difficult to grasp and so the measures tend to reflect more contemporaneous or near-term growth, taking cues from price and earnings momentum. Therefore, factor investing tends to label the main drivers as Momentum, Quality and Value.

2. Australian Equities is a growth investor's market

Whilst Momentum, Value and Quality are the primary drivers of equities markets, it is the expectations of growth that does the heavy lifting in Australian equities. Exhibit 3 displays this dominance, shown by Momentum having the largest explanatory power of Australian stock returns. The impact of Quality and Value is more modest in comparison, but their presence is more to temper the extremes of the more extrapolative momentum factor.

Exhibit 3: Explanatory power of factors for Australian stock returns



Source: Invesco as of 30 June 2021. Cumulative factor returns from multivariate cross-sectional regression of factor exposures against stock returns for Australian stocks. Factors are composite exposures based on several underlying measures for each factor.

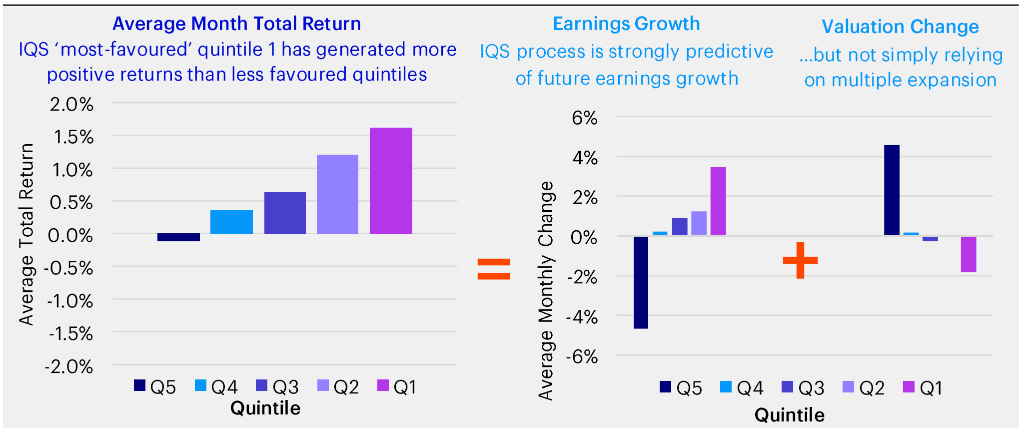
This observation of Momentum's dominance in Australian equities is more pronounced than in other developed equities markets globally, and warrants consideration. The explanation boils down to the position of Australia's economy on the global stage, and the nuanced structure of our market. Exhibit 4 outlines the explanation.

Exhibit 4: Why Momentum in Australia more so than other developed markets?

1	**Small, open economy** The economy has significant leverage to global growth in general and commodity prices in particular, which results in long, persistent trends in company financial performance. Beyond the direct impact of global demand on the large resources sector and its flow on into the economy, there is considerable impact from global growth due to the open nature of the economy and the sensitivity of the exchange rate to the terms of trade.
2	**Narrow market** The Australian market is relatively thin so that homogeneous sectors have relatively few stocks. This reduces the set of meaningful peers that: 1. can provide valuation comparisons, and hence price anchors. 2. are fewer news releases that give insights into the trading conditions for industries, prolonging the period of extrapolation between hard data points.
3	**Resources are deeply cyclical** A large component of deeply cyclical resource stocks whose earnings are extremely volatile over the life of the commodity cycle. These stocks tend to have high prices when their valuation ratios appear cheap, and low prices when their valuation ratios look expensive, because their earnings have deeper cycles than their prices. This makes tight valuation of these stocks more problematic and provides more opportunity for price trends to run.
4	**Semi-annual reporting** Rather than the quarterly reporting required in many other developed markets. This extends the period between news updates.
5	**Retail investors** Australia has a high participation of retail investors who are often more prone to trend following and inefficient use of fundamental news. This can prolong and exaggerate trends that are exploited by momentum signals.

Hence, Australian investors need to successfully differentiate between stocks with strong growth prospects as a primary driver of performance. As part of Invesco Australian Equities, Invesco Quantitative Strategies (IQS) have demonstrated this ability, with companies being most favoured having the highest earnings growth prospects and generating the strongest subsequent returns. This is demonstrated in Exhibit 5, which shows the average monthly performance of companies ranked by IQS as the most favoured 20% of the market (Quintile 1) generating the strongest subsequent period of performance. Returns can be decomposed into earnings growth and valuation change. Importantly, using this decomposition, we note these most-favoured companies delivered the strongest future earnings growth, whilst their valuation multiples compressed by a smaller amount.

Exhibit 5: Decomposition of Total Returns = Earnings Growth + Valuation Change



Source: Invesco as of 30 June 2021. Average over all monthly periods. Cumulative factor returns from multivariate cross-sectional regression of factor exposures against stock returns for Australian stocks. Factors are composite exposures based on several underlying measures for each factor.

3. Diversification is key

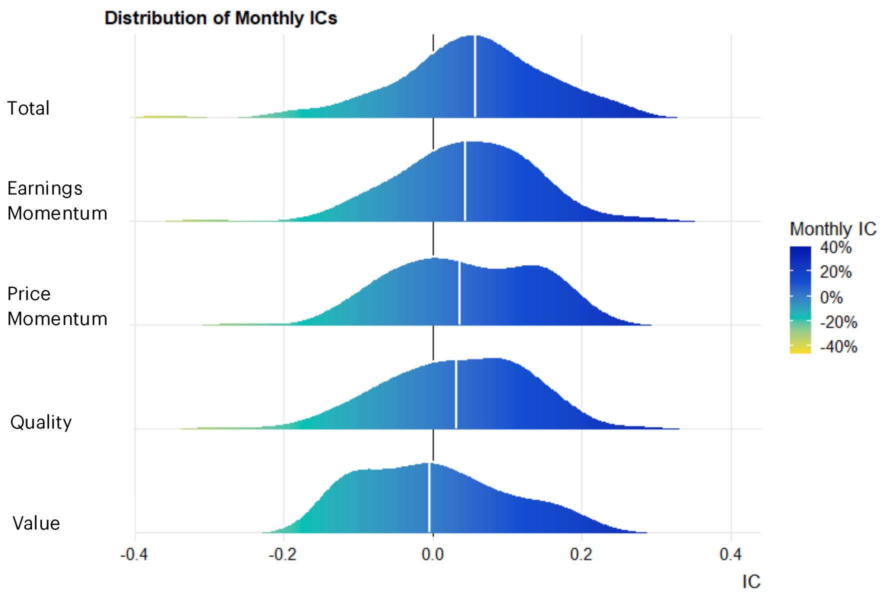
The inclusion of Quality and Value factors alongside Momentum in a multi-factor process results in superior long-term performance than investing in Momentum alone. Conceptually, this occurs due to Value and Quality being complementary to the Momentum factor, avoiding the excesses of the more extrapolative idea. Mathematically, this presents as a low correlation between factors. Factor diversification is an important component of driving strong long-term returns.

Some examples of the complementary characteristics between factors include:

- Value reduces the tendency of Momentum to select stocks with strong "growth at any price".
- Quality helps ensure strong Momentum companies have earnings which are sustainable, having financially healthy balance sheets and high quality management teams.
- Quality avoids buying "cheap for a reason" Value companies.

The Information Coefficient (IC) describes the predictive power of a factor or the skill level of an overall investment capability. It is measured as the correlation between the prediction and subsequent returns. Monthly ICs for IQS factors and the overall total forecast are shown in Exhibit 6. The average of the distribution is shown by the white vertical bar; where this is greater than zero indicates positive predictive ability of the factor. Earnings and Price Momentum as well as the Quality factor have demonstrated positive predictive ability on average, over the long term. The Value factor, on the other hand, does not have strong predictive ability on average in Australia. Importantly, however, the predictive ability of the overall forecast – the Total IC in Exhibit 5 – is stronger than any of the individual factor ICs… demonstrating the benefit of diversification in factors.

Exhibit 6: Factor diversification



Source: Invesco, Axioma. The ICs shown are the correlation between stock factor scores and the subsequent period monthly returns to corresponding stocks, from 30th June 2008 to 30th June 2021.
Past performance is not a predictor of future performance.

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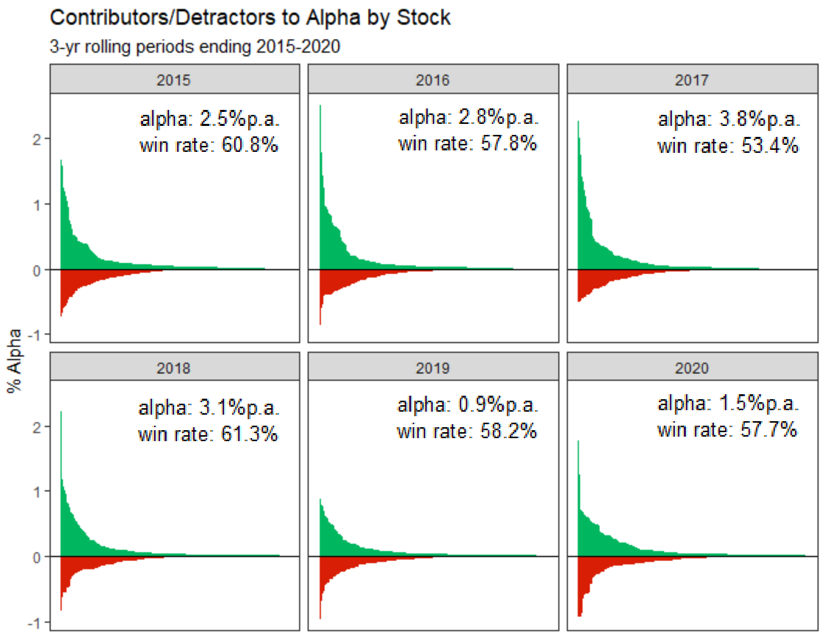
In addition to factor diversification, it is also important to diversify across stocks… spreading the predictive ability across many positions… to generate strong risk-adjusted returns. This underpins the reliability of the investment process, ensuring value-add is derived from a broad spread of positions rather than relying on a small number of stocks being big winners.

An effective factor investing process is one where the stock attribution shows a large number of positive contributors, and more than the number of detractors. Exhibit 7 shows the rolling 3-year stock attribution of the Invesco Wholesale Australian Share Fund over the last six years. Green bars show positive stock contributors, whilst the red bars show negative detractors. In each period the green area is greater than the red (showing positive 3-year returns in each period), but importantly there is a broad spread of contributors rather than the value add coming from just a few successful positions. This stock diversification is key to ensuring a reliable, repeatable process for generating value-add, evidenced by the similar shape of attribution charts across the six panels.

Exhibit 7: Stock diversification



Source: Invesco, Axioma. The fund attribution is of the Invesco Wholesale Australian Shares Fund, June 30, 2021.
Alpha: Three year outperformance relative to the benchmark on a per annum basis.
Win rate: Stocks with positive attribution as a percentage of total stocks.
Past performance is not a predictor of future performance.

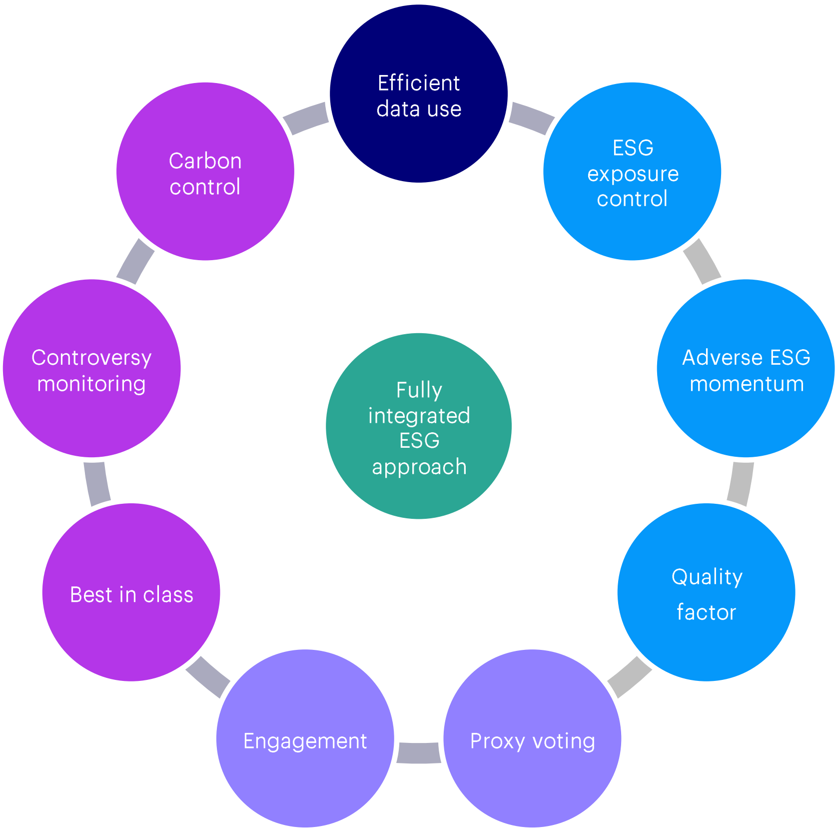
4. Factor investing and ESG are perfect partners

Factor investing is perfectly suited to delivering dual objectives of generating above-benchmark returns whilst being mindful of environmental, social and governance (ESG) standards. On one hand, retaining a focus on factors generates the returns; on the other hand curating the investment universe improves ESG focus; in combination the integration of the two delivers ESG outcomes whilst maintaining factor exposures to deliver returns.

Exhibit 8 is the IQS ESG Flower; each petal on the flower being an avenue of ESG integration as part of a holistic approach. Outlining the main areas:

- **Efficient ESG data use:** Being data driven investors, the broad access to and robust handling of ESG data sources is a natural strength. Combining carefully curated vendor data with proprietary sources ensures the challenge of ESG data management can be eclipsed.
- **ESG return and risk factors:** As the focus on ESG issues increases so does the possibility for ESG to influence risk and return. Whilst many of the return-driving characteristics are subsumed within the Quality factor, it is equally important to manage ESG risk. Ensuring portfolio ESG exposure is not less than benchmark ESG exposure in one risk management approach; avoiding companies with negative ESG momentum is another.
- **ESG outcome design:** Factor investing supports the design of specific ESG outcome objectives into portfolio construction. Examples include delivering a portfolio with lower carbon exposure or deliberately a positive ESG exposure via a best-in-class approach. Companies embroiled in ESG controversies can be excluded from investment.
- **ESG stewardship:** Engagement is an important avenue to improving the ESG behaviours of companies. In parallel, diligent maintenance of proxy voting responsibilities is not just a fiduciary duty to clients, but an opportunity to represent ESG interests to company boards.

Exhibit 8: IQS ESG Flower – A holistic integration of ESG in Australian Equities



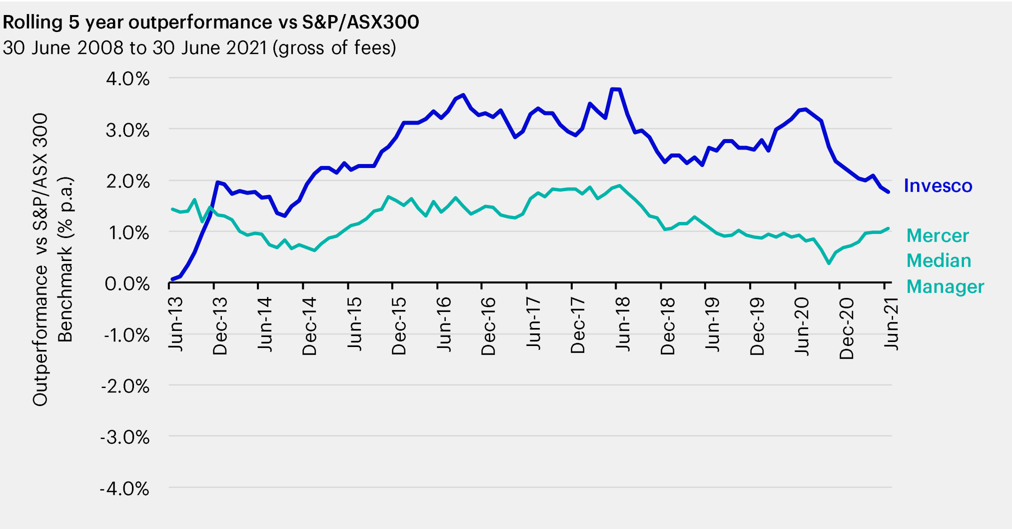
Source: Invesco, 2021.

5. Big on returns, small on cost

The number one focus of the investment process remains continuing to deliver returns in line with expectations, 2% p.a. ahead of benchmark. The fund track record has delivered returns ahead of benchmark over all rolling 5 year periods in its 13-year lifetime, as shown in Exhibit 9, and outperformed the Mercer median manager in 94% of rolling 5 year periods.

However, Invesco price this product at approximately half that of the average. This is possible due to the investment process having experienced professionals leveraging data and technology, whilst remaining light on capital intensive overheads.

Exhibit 9: Consistent and complementary performance



Data as at 30 June 2021.[1]

6. Conclusion

Factor investing has demonstrated its ability to harness value-add via systematically capturing the drivers of equity markets. In Australian Equities, whilst the Momentum factor does the heavy-lifting through its ability to predict company growth, the Value and Quality factors play important supporting roles, critical for factor diversification.

The IQS approach to factor investing, embracing the five principles explored in this paper, complements other more traditional Australian equity capabilities. It offers reliable outperformance of the ASX benchmark using a style-neutral approach to investing, and its reliable return regeneration, ESG integration and competitive pricing make it a compelling candidate for inclusion as a Core holding for investor Australian equity portfolios.

[1] Mercer Median Manager data is based on the Australian Shares (Long Only) Universe, gross of fees. Source: MercerInsight® Information contained herein has been obtained from a range of third party sources. While the information is believed to be reliable, Mercer has not sought to verify it independently. As such, Mercer makes no representations or warranties as to the accuracy of the information presented and takes no responsibility or liability (including for indirect, consequential or incidental damages), for any error, omission or inaccuracy in the data supplied by any third party. Invesco Australian Core Equity Strategy was added to the Mercer Australian Shares (Long Only) Universe on 28 February 2009. Invesco Quantitative Strategies (IQS) Australian Core Equity Strategy returns (gross of fees) since inception in 30 June 2008. Note that the Invesco Wholesale Australian Share Fund has been managed by the IQS team continuously since 15th February 2013, therefore prior returns of the Fund (which are not reported here) are not relevant to the IQS Strategy returns reported in this chart

Important information